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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/872,596	06/01/2001	Dennis P.J. Ting	3179.1001-001	2621
21005	7590	01/26/2005	EXAMINER	
HAMILTON, BROOK, SMITH & REYNOLDS, P.C.			WONG, BLANCHE	
530 VIRGINIA ROAD			ART UNIT	
P.O. BOX 9133			PAPER NUMBER	
CONCORD, MA 01742-9133			2667	

DATE MAILED: 01/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/872,596

Applicant(s)

TING ET AL.

Examiner

Blanche Wong

Art Unit

2667

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5,12,13,16,23-25 and 28 is/are rejected.
- 7) ☒ Claim(s) 3,4,6-11,14,15,17-22,26,27 and 29-34 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date Aug7'01.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: On p. 9, ln. 2, --120-0 – should be “122-0”.

Appropriate correction is required.

Claim Objections

2. Claim 32 is objected to because of the following informalities: It is dependent on itself.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1,3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In cl. 1, ln. 10-11, it is unclear where the virtual network address is assigned to, whether to the virtual network address or to the trunk network address.

In cl. 3, ln. 3, it is unclear where – a device structure – is the devices structures in claim 2.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1,2,12,13,23,24,25 are rejected under 35 U.S.C. 102(e) as being anticipated by Gai et al. (U.S. Pat No. 6,678,241).

With regard to claim 1,12,24, Gai discloses a plurality of ports 302a-h within a switch 230 (col. 7, ln. 62-63, see also Fig. 3). The ports act as access ports or as trunk ports (setting a trunk network address) that is directly connected to a LAN (col. 7, ln. 64-col. 8, ln. 2) and LANs are associated (assigning ownership) with VLAN (virtual network device) (col. 7, ln. 1-5). Gai groups the LANs into colored VLAN (setting a trunk network address to a first (one of the colors) network address assigned to a first communications port; setting network addresses for the plurality of communications ports and a virtual network address (VLAN) assigned to the trunk network address) (col. 7, ln. 1-5). Gai discloses the access switches 230-234 to distribute and deliver VLAN associated messages (receiving and forwarding the data packet to the virtual network device) (col. 7, ln. 6-51).

With regard to claims 2,13,25, Gai further discloses an array or table 510 (col. 12, ln. 26) (See also Fig. 5C) that contains a first column that identifies (device structure including an owner field) (col. 12, ln. 28) the logical VLANs in colors: red, blue, yellow, and green (allocating a plurality of device structures) (col. 12, ln. 29).

With regard to claim 12, Gai further discloses the designation of a port 302 as either an access or trunk port and the corresponding VLAN encapsulation technique (a

trunking configuration routine) (col. 8, ln. 30-33) and color assignment (an owner routine) (col. 9, ln. 33-55).

With regard to claim 23, it is inherent that the encapsulation techniques and management protocols are computer program product activated and accessible by a network administrator. Col. 8, ln. 16.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 5,16,28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gai in view of Sugihara (U.S. Pat No. 6,385,197).

With regard to claims 5,16,28, Gai discloses the method as claimed in cl. 1. However, Gai fails to explicitly show receiving a data packet, by the virtual network device to be transmitted to the trunk, and transmitting the data packet through one of the plurality of communications ports.

In an analogous art, Sugihara discloses switched environments containing VLANs (col.2, ln. 36-37) where virtual port 27 is defined as the first trunking group (col. 7, ln. 30) and that from the network manager 310 point of view, there are no differences between the physical ports and virtual ports (col. 7, ln. 12). Therefore, when the network manager sends data through a communications port, it is also transmitting on the trunk.

A person of ordinary skill in the art would have been motivated to employ Sugihara in Gai in order to obtain transmitting data packet through ports and thus trunks. The suggestion/motivation to do so would have been to provide for a method of addressing multiple ports in a node and of supporting port trunking between multiple nodes. Sugihara, col. 4, ln. 31-34. At the time the invention was made, therefore, it would have been obvious to one of ordinary skill in the art to which the invention pertains to combine Sugihara and Gai to obtain the invention as specified in claims 5,16,28.

Allowable Subject Matter

9. Claims 3-4,6-11,14-15,17-22,26-27,29-34 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Blanche Wong whose telephone number is 571-272-3177. The examiner can normally be reached on Monday through Friday, 830am to 530pm.

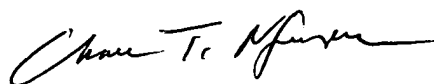
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi H Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BW

BW

January 21, 2005



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